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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,210	06/30/2005	Olivier Dupuis	66345-0036	6344

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EXAMINER	
ABU ALI, SHUANGYI	
ART UNIT	**PAPER NUMBER**
1793	

MAIL DATE	DELIVERY MODE
02/20/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/541,210	DUPUIS ET AL.	
	Examiner	Art Unit	
	SHUANGYI ABU ALI	1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 November 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9 and 11-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9 and 11-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/30/2007 has been entered.

Response to Arguments

Applicant's arguments with respect to claims 1-28 about the new limitation of the film-forming polymer have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-9, 11-13, 15-23 and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 5,685,898 to Dupuis et al., in view of U. S. Patent No. 3, 719,490 to Yudelson et al.

Regarding claim 1, Dupuis et al. disclose a composition of adjustable viscosity comprising a titanium dioxide pigment (col.4, line 22), which has the ability of oxidation-reduction under irradiation, a metallic salt (col.3, lines 40-53), a complexing (sequestering) agent (column 3, lines 43-67), a polymeric resin (col. 1, line 5) such as hydroxylcellulose and acrylic polymer, a basic compound (col.3, lines 61-66), an organic solvent (col.2, line 20) and water (col.2, line 20).

But they are silent about using the polymer such as alkyl as applicant set forth in claim 1.

However, it would have been obvious to one of ordinary skill in the art at the time of invention by applicants to use polymer of alkyl as applicants set forth in claim 1,

motivated by the fact that Yudelson et al. also drawn to photosensitive composition, disclose that coating dispersion comprise of palladium chloride can be used together with binders such as cellulose and alkyl acrylate copolymer(Col. 5, line 65 to col. 6, line 2).

Regarding claims 2 and 3, Dupuis et al. disclose that a titanium dioxide pigment, such as Tiona®, which has a particle size in the range of 0.2-0.25 microns, is used in the composition (col.4, line 22).

Regarding claims 4-6, Dupuis et al. disclose that palladium chloride or palladium sulfate is used in the composition (col.3, lines 40 and 41).

Regarding claims 7 and 8, Dupuis et al. disclose that the complexing agent may comprise a carboxylic acid, such as for example, succinic acid, mesoxalic acid, tartaric acid, citric acid or like (col.3, lines 45-48).

Regarding claims 9, Dupuis et al. disclose the use of an acrylic polymer (col. 3, line 61) dissolved completely (col. 4, line 63) in a solvent.

Regarding claims 11 and 12, Dupuis et al. disclose that the composition comprises an alkaline salt or a base, such as potassium hydroxide and sodium hydroxide (col.3, lines 61-67).

Regarding claim 13, Dupuis et al. disclose that methanol or ethanol may be utilized as an organic solvent in the composition (col.2, line 20).

Regarding claim 15, Dupuis et al. disclose deionised water used in the composition (col. 2, lines 35 and 36).

Regarding claim 16, Dupuis et al. disclose a wetting agent, an antifoaming agent and a surfactant such like used in the composition (col. 4, lines 3-5).

Regarding claims 17, Dupuis et al. disclose that the titanium dioxide pigment amount is in the range of 0.01-5%.

Regarding claims 18, Dupuis et al. disclose that the amount of metallic salt is in the range of 0.05-5%.

Regarding claims 19, Dupuis et al. disclose that the concentration of complexing agent is in the range of 0.01-5%.

Regarding claims 20, Dupuis et al. disclose that the resin amount is in the range of 0.1-15%.

Regarding claims 21, Dupuis et al. disclose that the concentration of a base is in the range of 0.1-2.5%.

Regarding claims 22 and 23, Although Dupuis et al did not specify point out the water or the organic concentration in the composition as applicant set forth in claims 22 and 23. However, it is Examiner's position that selection of appropriate water and organic solvent concentration would have been within the skill of an ordinary artisan depending on the desired viscosity and solubility of the constituents.

Regarding claim 25, Yudelson et al. disclose that copper chloride is used in the composition (col. 1, line 1)

Claims 1-9, 11-13 ,15-23 and 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent 5,685,898 to Dupuis et al., in view of U. S. Patent No. 5,075,039 to Goldberg.

Regarding claims 1 and 27-28, Dupuis et al. disclose a composition of adjustable viscosity comprising a titanium dioxide pigment (col.4, line 22), which has the ability of oxidation-reduction under irradiation, a metallic salt (col.3, lines 40-53), a complexing (sequestering) agent (column 3, lines 43-67), a polymeric resin (col. 1, line 5) such as hydroxylcellulose and acrylic polymer, a basic compound (col.3, lines 61-66), an organic solvent (col.2, line 20) and water (col.2, line 20).

But they are silent about using the polymer as applicants set forth in claims 1 and 27-28.

However, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to use polymer as applicant set forth in claims 27 and 28, motivated by the fact that Goldberg, also drawn to coating composition, disclose that coating dispersion comprise of palladium chloride can be used together with binders such as cellulose, epoxy, acrylic and polyester (col. 7, lines 44-65).

Regarding claims 2 and 3, Dupuis et al. disclose that a titanium dioxide pigment, such as Tiona®, which has a particle size in the range of 0.2-0.25 microns, is used in the composition (col.4, line 22).

Regarding claims 4-6, Dupuis et al. disclose that palladium chloride or palladium sulfate is used in the composition (col.3, lines 40 and 41).

Regarding claims 7 and 8, Dupuis et al. disclose that the complexing agent may comprise a carboxylic acid, such as for example, succinic acid, mesoxalic acid, tartaric acid, citric acid or like (col.3, lines 45-48).

Regarding claims 9, Dupuis et al. disclose the use of an acrylic polymer (col. 3, line 61) dissolved completely (col. 4, line 63) in a solvent.

Regarding claims 11 and 12, Dupuis et al. disclose that the composition comprises an alkaline salt or a base, such as potassium hydroxide and sodium hydroxide (col.3, lines 61-67).

Regarding claim 13, Dupuis et al. disclose that methanol or ethanol may be utilized as an organic solvent in the composition (col.2, line 20).

Regarding claim 15, Dupuis et al. disclose deionised water used in the composition (col. 2, lines 35 and 36).

Regarding claim 16, Dupuis et al. disclose a wetting agent, an antifoaming agent and a surfactant such like used in the composition (col. 4, lines 3-5).

Regarding claims 17, Dupuis et al. disclose that the titanium dioxide pigment amount is in the range of 0.01-5%.

Regarding claims 18, Dupuis et al. disclose that the amount of metallic salt is in the range of 0.05-5%.

Regarding claims 19, Dupuis et al. disclose that the concentration of complexing agent is in the range of 0.01-5%.

Regarding claims 20, Dupuis et al. disclose that the resin amount is in the range of 0.1-15%.

Regarding claims 21, Dupuis et al. disclose that the concentration of a base is in the range of 0.1-2.5%.

Regarding claims 22 and 23, Although Dupuis et al did not specify point out the water or the organic concentration in the composition as applicant set forth in claims 22 and 23. However, it is Examiner's position that selection of appropriate water and organic solvent concentration would have been within the skill of an ordinary artisan depending on the desired viscosity and solubility of constituents.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over combined teaching of U. S. Patent No.5, 685,898 to Dupuis et al. and U. S. Patent No. 5,075,039 to Goldberg, in view of U.S. Patent No. 4,622,069 to Akai et al.

Regarding claim 14, Although combined teaching of Dupuis et al. and Goldberg disclose the use of alcohols as the organic solvent, they do not specifically disclose the use of those solvents set forth in applicant claim14.

Nevertheless, it would have been obvious to one of ordinary skill in the art at the time of invention to utilize another solvent, such as dioxane, aromatic, glycols and acetates, in addition to ethanol or methanol, motivated by the fact that Akai et al., also drawn to compositions for use in the deposition of metal coatings on insulating (ceramic) substrates, disclose that such organic solvents are known and commonly employed in coating compositions (col. 6, lines 41-65).

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over combined teaching of U.S. Patent No.5, 685,898 to Dupuis et al. and U. S. Patent No. 5,075,039 to Goldberg, in view of US 2004/0037978 A1 to Tsubaki et al.

Regarding claim 24, Although combined teaching of Dupuis et al. and Goldberg disclose that ultraviolet energy used to deposit palladium particle into the coating, they are silent about deposit titanium particle in the coatings.

Nonetheless, it would have been obvious to one of ordinary skill in the art at the time of invention to using the technique as set forth by applicant, motivated by the fact that Tsubaki et al, also drawn to deposit titanium on to a recording sheet, disclose that a wavelength around 365 nm and a energy level at 2 KJ/cm^2 was used in the coating process ([0147]).

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over combined teaching of U.S. 5,264,466 to Takiyama et al. and U.S. Patent No.5, 685,898 to Dupuis et al. , further in view of U. S. Patent No. 5,075,039 to Goldberg

Regarding claim 25, Takiyama et al. disclose a composition comprising polymer and copper chloride (abstract and col. 5, line 65). But they are silent about the other ingredient as applicants set froth in claim 1.

However, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to use the other ingredients as applicants set forth in claim 1, motivated by the fact that Dupuis et al., also drawn to a coating composition, disclose that such dispersion is stable, and Ph and viscosity is adjustable (abstract).

But the combined teaching of Dupuis et al. and Goldberg are silent about the polymer used in the composition as applicant set forth in claim 25.

However, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to use polymer as applicants set forth in claim 25, motivated by the fact that Goldberg, also drawn to coating composition, disclose that coating dispersion comprise of palladium chloride can be used together with binders such as cellulose, epoxy, acrylic and polyester et al (col. 7, lines 44-65).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHUANGYI ABU ALI whose telephone number is (571)272-6453. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

sa

/Jerry A Lorengo/
Supervisory Patent Examiner, Art Unit 1793